

AMENDMENTS TO THE CLAIMS:

Applicant proposes to amend claims 1, 3 and 23 and add claims 34 and 35.

Claim 2 is canceled herein and claims 5, 7-10, 12-22, 24, and 26-30 have been previously canceled. Upon entry of the Amendment by the Examiner this listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a single layer metal gate electrode material over a semiconductor substrate, wherein the metal gate electrode material has a work function; and

subjecting at least a portion of the metal gate electrode material to at least one of a plasma silicidation or plasma germanidation process, ~~the causing plasma process to cause~~ the portion to be converted into a plasma altered metal gate electrode and
have a different work function;

patterning the metal gate electrode material having the work function and
patterning the portion of the metal gate electrode material having the different work
function to form a first gate electrode having the work function and a second gate
electrode having the different work function; and

forming source/drain regions proximate the first gate electrode and second gate
electrode.

2. (Canceled).

3. (Currently Amended) The method as recited in Claim 2 1 further including forming a cladding layer over the metal gate electrode material having the work function and the metal gate electrode material having the different work function prior to the patterning, wherein the cladding layer reduces a sheet resistance of the first gate electrode and the second gate electrode.

4. (Original) The method as recited in Claim 3 wherein the cladding layer is selected from the group of materials consisting of polysilicon, molybdenum, tungsten, and titanium nitride.

5. (Canceled).

6. (Original) The method as recited in Claim 1 wherein the layer of gate electrode material comprises a material selected from the group consisting of molybdenum, tantalum, and tungsten.

7.- 10. (Canceled).

11. (Original) The method as recited in Claim 1 further including forming a protective layer over the layer of gate electrode material and leaving the portion exposed, wherein forming the protective layer occurs prior to subjecting the portion to the plasma process.

12.-22. (Canceled).

23. (Currently Amended) A method for manufacturing an integrated circuit, comprising:

forming transistors over a semiconductor substrate, including;

forming a single layer metal gate electrode material over the semiconductor substrate, wherein the metal gate electrode material has a work function;

subjecting at least a portion of the metal gate electrode material to at least one of a plasma silicidation or plasma germanidation process, ~~the plasma process causing~~ to cause the portion to be converted into a plasma altered metal gate electrode and have a different work function; and

patterning the metal gate electrode material having the work function and patterning the portion of the metal gate electrode material having the different work function to form a first gate electrode having the work function and a second gate electrode having the different work function; and

forming source/drain regions proximate the first gate electrode and second gate electrode; and

forming interconnects within dielectric layers located over the transistors.

24. (Canceled).

25. (Original) The method as recited in Claim 23 wherein the layer of gate electrode material comprises a material selected from the group consisting of molybdenum, tantalum, and tungsten.

26.-30. (Canceled).

31. (Original) The method as recited in Claim 23 further including forming a protective layer over the layer of gate electrode material and leaving the portion exposed, wherein forming the protective layer occurs prior to subjecting the portion to the plasma process.

32. (Original) The method as recited in Claim 23 further including forming a cladding layer over the metal gate electrode material having the work function and the metal gate electrode material having the different work function prior to the patterning, wherein the cladding layer reduces a sheet resistance of the first gate electrode and the second gate electrode.

33. (Original) The method as recited in Claim 32 wherein the cladding layer is selected from the group of materials consisting of polysilicon, molybdenum, tungsten, and titanium nitride.

34. (New) The method as recited in Claim 1 wherein the second gate electrode material having the different work function is about 1.eV different than that of the first gate electrode material having the work function.

35. (New) The method as recited in Claim 1 wherein the different work function of the second gate electrode material is selectively adjusted relative to the work function of the first gate electrode material.